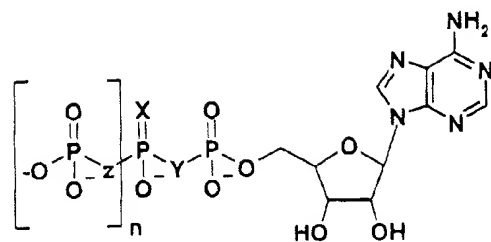


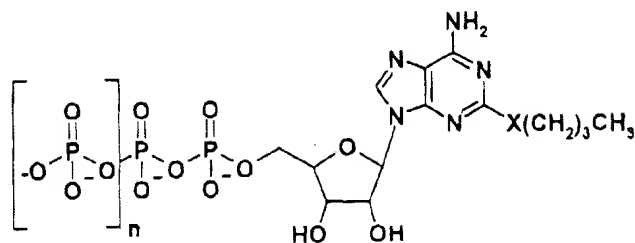
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1 a: X = S, Y = O, Z = O, n = 0

b: X = O, Y = CH<sub>2</sub>, Z = O, n = 1c: X = O, Y = O, Z = CH<sub>2</sub>, n = 1d: X = S, Y = CH<sub>2</sub>, Z = NH, n = 1

Fig. 1A



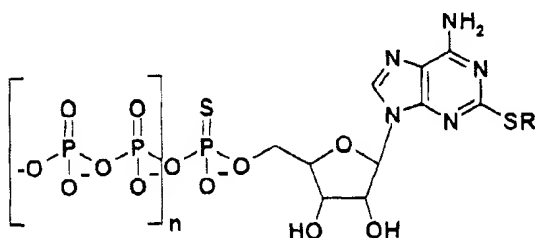
2 a: n = 1, X = S

b: n = 0, X = S

c: n = 1, X = NH

d: n = 1, X = O

Fig. 1B



3. n = 1, a: R = hexyl, b: R = benzyl

4. n = 0, a: R = hexyl, b: R = benzyl

Fig. 1C

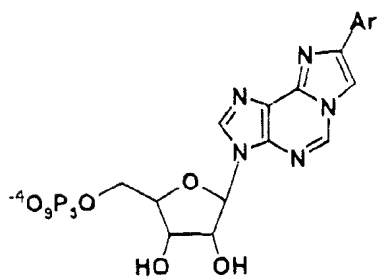
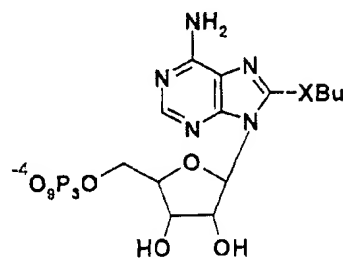
5 a: Ar = p-NO<sub>2</sub>-C<sub>6</sub>H<sub>4</sub>b: Ar = p-NH<sub>2</sub>-C<sub>6</sub>H<sub>4</sub>

Fig. 1D



6. X = S

7. X = NH

8. X = O

Fig. 1E

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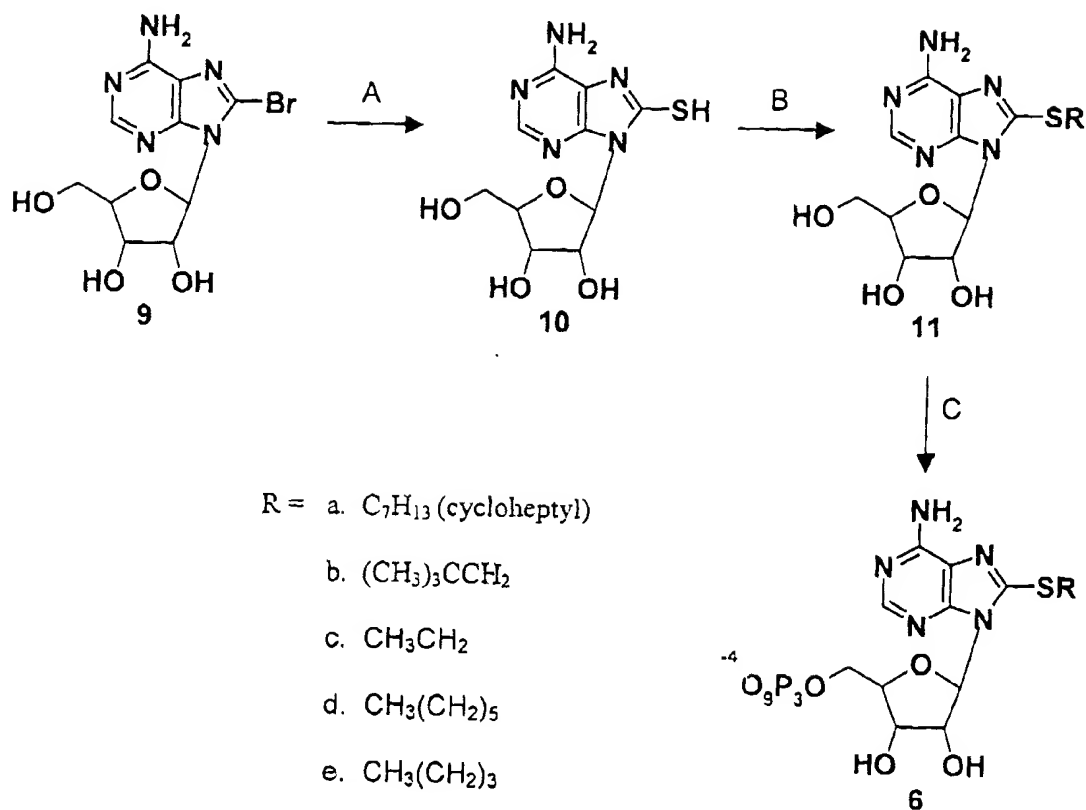


Fig. 2

005917-050500

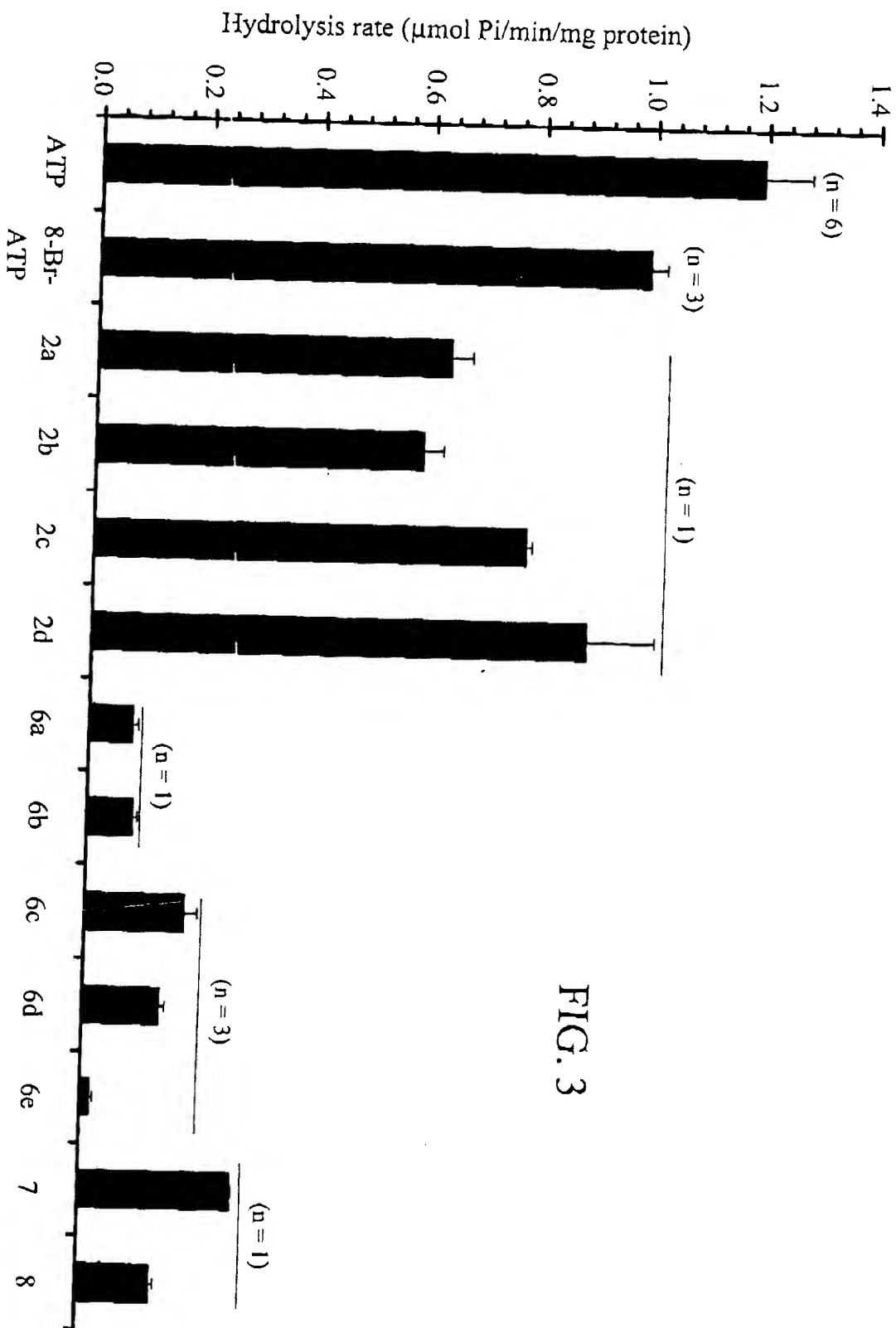


FIG. 3

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Substrates	K <sub>m</sub> ( $\mu$ M)	V <sub>max</sub> ( $\mu$ mol/min/mg protein)	Inhibitors	K <sub>i</sub> ( $\mu$ M)
ATP	18 $\pm$ 1	1.65 $\pm$ 0.10	8-cycloheptylS-ATP	31 $\pm$ 2.5
ADP	33 $\pm$ 1	1.30 $\pm$ 0.08	8-CH <sub>2</sub> tBuS-ATP	45 $\pm$ 2.5
2-BuS-ATP	2a 36 $\pm$ 6	0.83 $\pm$ 0.05	8-hexylS-ATP	16 $\pm$ 2.0
2-BuS-ADP	2b 63 $\pm$ 14	0.94 $\pm$ 0.10	8-BuS-ATP	10 $\pm$ 2.0
2-BuNH-ATP	2c 32 $\pm$ 8	0.99 $\pm$ 0.10		
2-BuO-ATP2d	2d 28 $\pm$ 8	0.82 $\pm$ 0.09		
8-bromo-ATP	22 $\pm$ 5	0.63 $\pm$ 0.04		
8-ctylS-ATP	6c 12 $\pm$ 5	0.30 $\pm$ 0.03		
8-BuNH-ATP	7 20 $\pm$ 7	0.28 $\pm$ 0.03		
8-BuO-ATP	8 26 $\pm$ 5	0.20 $\pm$ 0.01		

FIG. 4

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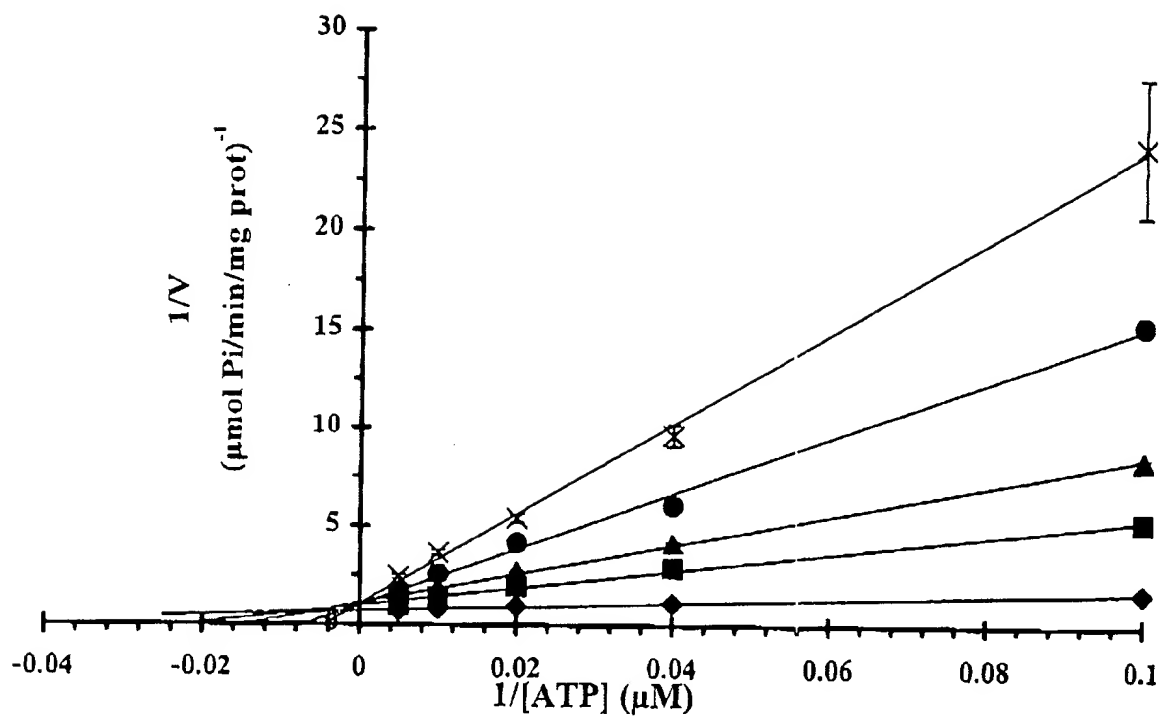


FIG. 5A

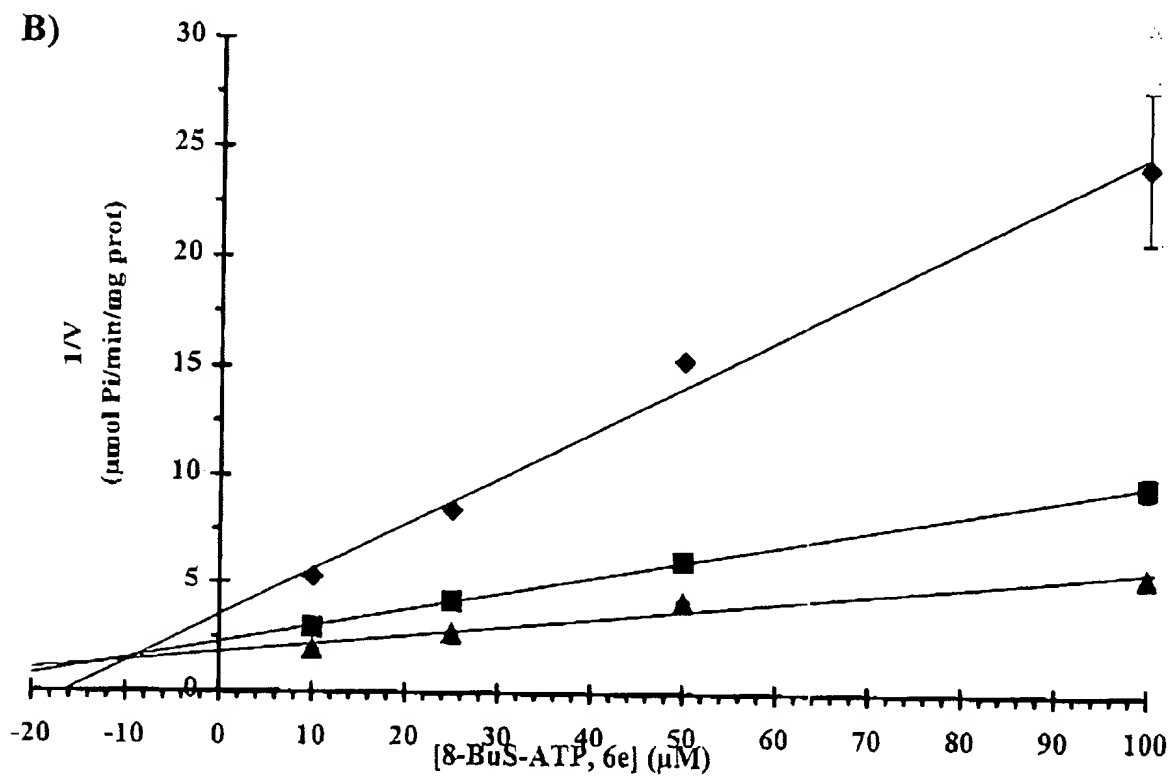


FIG. 5B

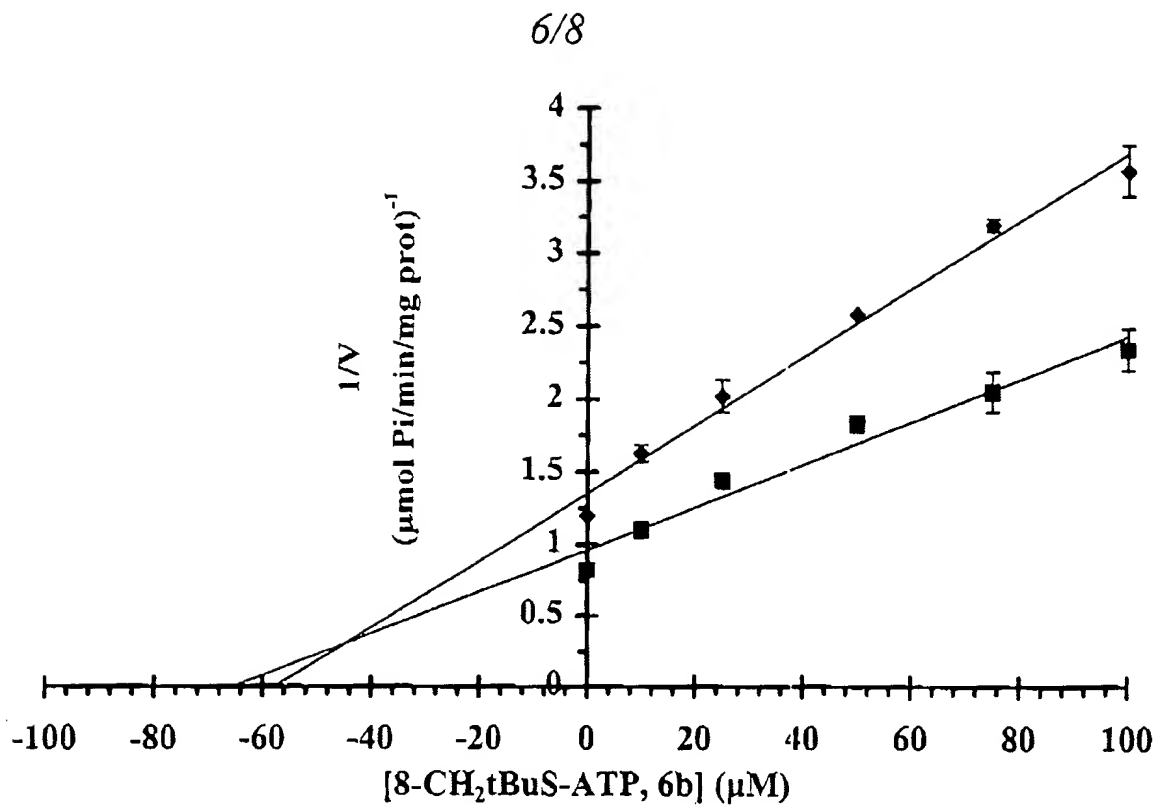


FIG. 6A

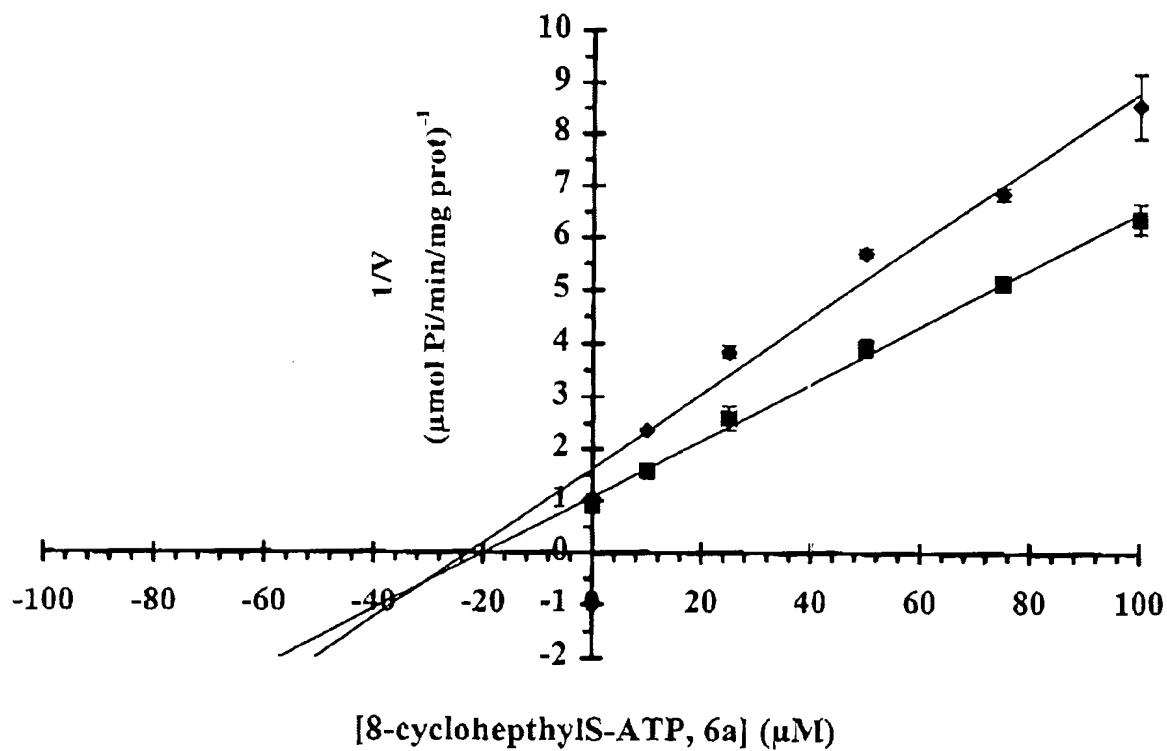


FIG. 6B

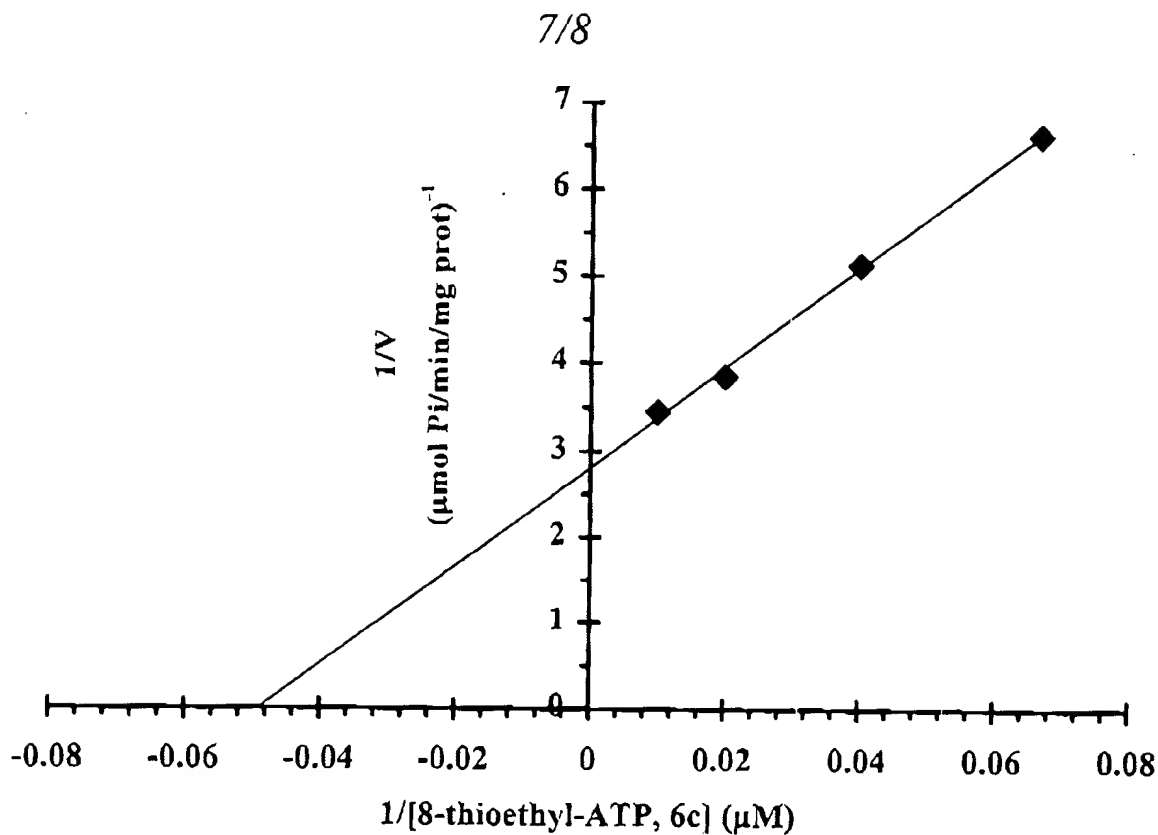


FIG. 7A

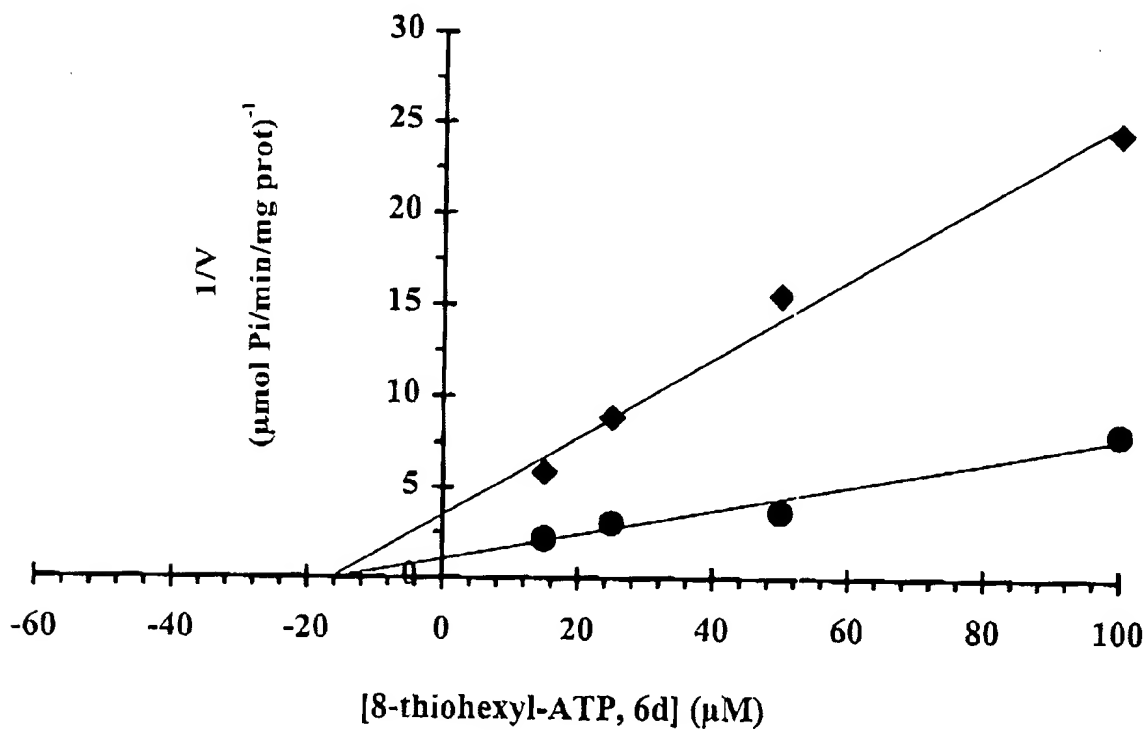


FIG. 7B

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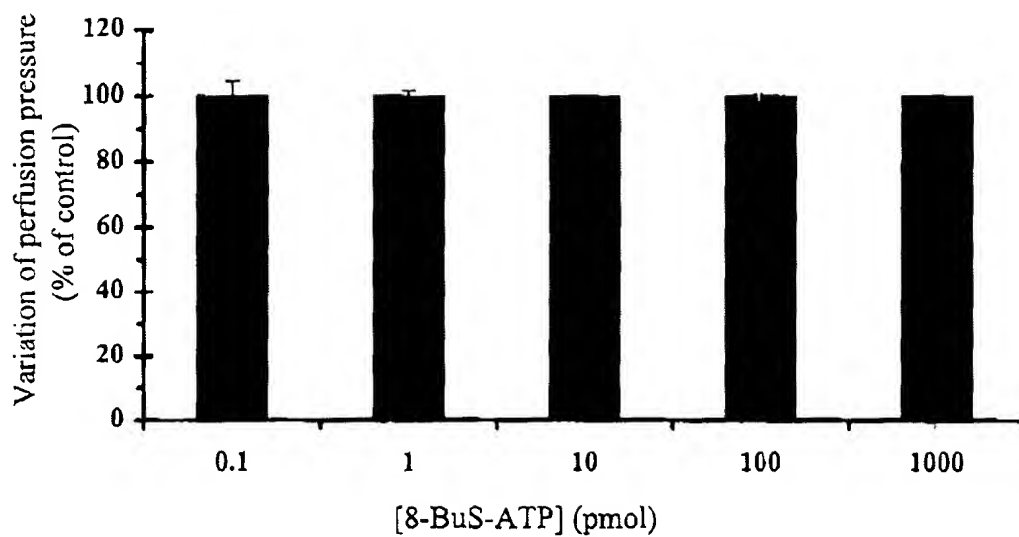


FIG. 8A

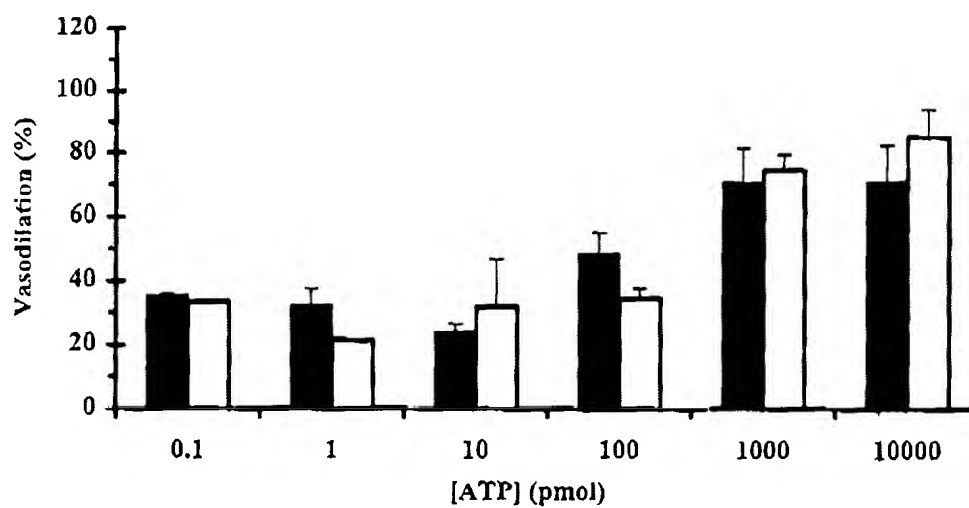


FIG. 8B

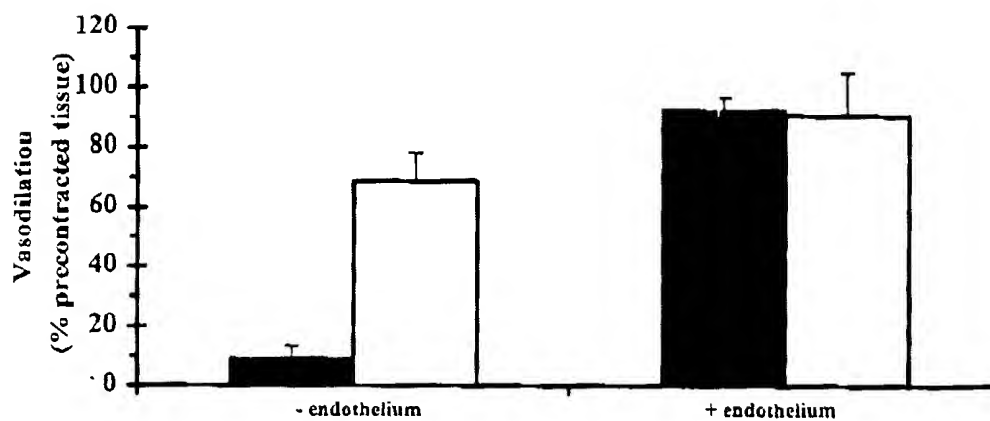


FIG. 8C